SERIES GROUP FORMATION CROFAUNAL Z AVY-MINERAL (IN FET) ODEPTH (IN FET) TOTAL	TANEOUS Z	SELECTED LITHOLOGIC DESCRIPTION Sand and gravel; well-rounded, clear white and yellow quartz; black chert; silty clay shale; some coal	FORMATION A OF SECTION OF SECTIO	NUMBER RECOVERY (FEET - INCHES) (SET - INCHES) (SET - INCHES) (RET - INCHES) (SET - INCHES)		EXPLANATION EXPLANED Sandstone
100 - 100 -		Clay shale, medium-light-gray, slightly to very silty, micaceous; bentonitic in part; rare coal; sandstone of angular white quartz Sandstone, white, slightly bentonitic Sandstone, light-gray, very slightly micaceous Sandstone, light-gray, slightly bentonitic Clay shale, medium-gray, very silty; hlack shale with coal laminae Bentonite, white; medium- to medium-light-gray clay shale, slightly silty in part Coal and bentonite, interbedded. Coal is 2-4 in. thick, black, dull to shiny, with shaly cleavage to blocky fracture; some has shaly laminae. Bentonite is grayish white high tolive gray, argillaceous Sandstone, light-gray, salt-and-pepper, massive, impermeable; porosity 12.4 to 15.5 percent Clay shale, claystone, coal, and bentonite. Coal is 8 in. thick; upper bentonite bed is grayish white, 2 ft 8 in. thick; middle one is white, 1 ft 11 in. thick. Lower ones are white, 2 to 5 in. thick. Claystone and clay shale are medium gray to medium dark gray; some is silty, some bentonitic Bentonite, very light yellowish-gray	0.	17 / ₂ -13 3/ ₈ -12 1/ ₄ -10 3/ ₄	6¼ K-25	Clay shale or claystone
——Sea level ——————————————————————————————————	m-f SHORT NORMAL	Coal, black, dull to shiny, shaly Clay shale, medium-light-gray, silty, micaceous, impermeable; porosity 9.4 to 15.1 percent Clay shale, medium-light-gray, silty, micaceous, impermeable; porosity 9.4 to 15.1 percent Clay shale, medium-light-gray, bentonitic; thin beds of siltstone and very fine-grained sandstone Sandstone, medium-light-gray, very bentonitic; permeability 9millidarcys; porosity 14.3 percent. Biotite is common. Clay shale and 8-in. coal bed in lower part of core	O"	5 20-0 6 18-0 7 20-0		Cored interval No samples recovered Oil show Gas show Very fine grained Fine grained Medium grained BIT SYMBOLS DRILL BITS osc.3
© Soo — Run 6		Siltstone to silty claystone, very light-gray, very bentonitic Sandstone, light-gray, bentonitic, massive; impermeable to 54 md; porosity 1.9 to 23.2 percent Siltstone, medium-light-gray, argillaceous, bentonitic Sandstone, light-gray, salt-and-pepper, argillaceous, impermeable; porosity 18.2 percent Siltstone and sandstone, light-gray, impermeable; porosity 17.3 percent. Biotite common. Interbedded siltstone and light-gray biotitic claystone. Swirly bedding at 700-701 ft Clay shale, medium- to medium-light-gray, silty in part, bentonitic in part. Bentonite laminae rare. Rounded patches (one-sixteenth inch in diameter) of light-gray clay common in some sections of core Bentonite, white	o- o-	8 11-0 9 20-0 10 19-0 11 20-0 12 19-3 13 19-0 14 20-0 14 20-0 0°30′ 60 2	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Hughes OSC-3 SHO Security hole opener G-3R Grant 3-point reamer R-2 Reed 2 DDT Smith DDT 2C Reed 2C Reed 2C CORE BITS NO.3 Reed K-24 hard formation K-25 Reed K-25 soft formation Location: Lat 69°34'N Long 153°18'W
900 — W >		Claystone, medium-light-gray, calcareous, bentonitic Claystone, medium-to medium-dark-gray, silty, slightly bentonitic; with abundant siltstone laminae Sandstone, light-gray, salt-and-pepper Sandstone, light-gray, interbedded with medium-gray claystone with siltstone laminae. Clay ironstone common Sandstone, light-gray, argillaceous; impermeable to 12 md; porosity 1.6 to 15.4 percent; beds of claystone in the lower part Claystone, medium-light-gray, slightly bentonitic; laminae and thin beds of siltstone and very fine-grained sandstone	0*	0°30′ 16 10-0 17 19-0 18 2-0	7½ 7½ 7½ 17 18.24	Elevation: Kelly bushing 340 feet Ground 324 feet January 26,1952 Completed: April 18,1952 Total depth: 987 feet Status: Plugged and abandoned Drilling and engineering data compiled from records of Arctic Contractors Electric log by Schlumberger Well Surveying Corporation All depths are measured from the top of the kelly bushing Colors were determined by comparison of dry samples with the National Research Council Rock Color Chart, 1948
1200 — 1200 — 1300 —		Clay shale, medium-dark-gray, slightly micaceous, slightly silty; harder than medium-light-gray clay shale above Siltstone, medium-light-gray Clay shale, medium-dark-gray, slightly micaceous; with abundant discontinuous laminae of medium-light-gray siltstone		0°45′ 0°45′ 19 4-0		DDT NO.5 - 1300
1500	LONG NORMAL	Clay shale, medium-dark-gray, slightly silty; with silty laminae abundant in lower part. Clay ironstone streaks in lower part. A 10-in. siltstone bed at 1456 ft	Tests 1, 2, 3, 1642-1675 ft: Packer failed to hold	20 20 0 21 20 0		NO.6 — 1400 — 1500 — 1500 — 1600 — 1600 — 17
1800 —	SHORT NORMAL WITH WITH	Sandstone, light-gray, silty; poor shaly cleavage; impermeable to 43 md; porosity 10.3 to 20.6 percent. Sand is angular to subangular white and clear quartz with a few gray chert and dark fragments. Mica rare, pyrite and glauconite absent. Inoceramus shell fragments abundant in 2-in. interval at 1686 ft, and common from 1695 to 1708 ft Sandstone, interbedded with medium-gray claystone, micaceous, silty Sandstone, light-to light-olive-gray, alightly to very argillaceous; permeability 41 to 37 md; porosity 13.3 to 17.9 percent. Carbonaceous laminae at 1716 ft; clay ironstone nodules at 1732-1733 ft Clay shale and siltstone, interbedded, the latter decreasing with depth. Claystone at base. Beds are medium gray to medium dark gray Sandstone, light-gray, slightly argillaceous Claystone, medium-dark-gray; with silt laminae Sandstone, very light-gray, argillaceous below 1849 ft; impermeable to 17 md; porosity 13.5 to 17.9 percent. Inoceramus fragments are common at 1841 and 1849-1852 ft. Sand grains are angular to subangular clear and white quartz, with some dark rock fragments and rare mica Conglomerate, of rounded black chert pebbles one-half inch thick Clay shale, dark-gray, slightly micaceous Sandstone, medium-light-gray, silty, argillaceous	Test 5, 1847-1879 ft: Open 70 min; strong blow of gas; flowed salt water after 30 min, recovered 20 gal water-cut mud. Bottom-hole pressure 800 psi, flowing pressure 500 psi Test 6, 1878-1897 ft: Retaining valve did not open Test 7, 1878-1897 ft: Open 1 hr, closed in 10 min; no gas to surface; recov-	1°30′ 26 20-0 27 12-6 28 19-0 29 30 7-0 31 17-0	12 20 4 10 13 14 15	9-5/9 DDT NO.9 — 1700
Z 2100 — 2200 —		Sandstone, siltstone, and clay shale, interbedded. Sandstone in sandstone at 1934 ft. Swirly bedding at 1940 ft. Sandstone impermeable to 645 md; porosity 11.1 to 17.5 percent Bentonite, bluish-gray Claystone, medium-dark-gray, silty; silty sandstone at top of core an sandstone and siltstone laminae in lower part. Coal laminae a base Claystone, medium-dark-gray, silty; with scattered carbonized plan fragments. Carbonaceous black shale with coal laminae at base Sandstone, medium-light-gray Sandstone, light-gray, argillaceous, micaceous, impermeable; pore sity 3.5 percent Siltstone, medium-light-gray; with clay shale laminae increasing with shale laminae increasing with shale laminae increasing with clay shale laminae with clay sha	d t	36 7-0 36 7-0 37 14-0 1°30′ 38 9-6 0°50′		OSC-3 NO.11 - 2100
Z 2300 — Z 2400 — Z 2		depth Claystone, light-gray Claystone, medium-gray, silty in upper part, slightly micaceou Carbonized plant fragments common. Small clay ironstone nodule abundant at 2340-2341 ft		0°45°		2300 NO.13
2500 —	LONG NORMAL		68- On-	1°55° 41 10-0 95% 42 12-0		
2800 — 2800 — 29	SHORT NORMA	Claystone, medium-dark-gray; siltstone intercalations and carbon ceous partings common at 2842 and 2851 ft. Ironstone concrets common at 2842-2845 ft Sandstone, light-gray, argillaceous, friable		43 12 0		NO.17 - 2800 - 2900 - 2900 - 3000 - 3000
Verneualismoides borealise No No Do Son To		Sandstone, light-gray, slightly silty; permeability 1.7 to 6.75 porosity 6.22 to 12.9 percent. Sand grains are angular to a angular clear and white quartz, commonly frosted, with rare supatches of clay shale Claystone, medium-to medium-dark-gray, slightly to very silty; in bedded with medium-light-gray siltstone. Swirly bedding at of core, slight crossbedding at base Sandstone, medium-light-gray, silty, argillaceous, impermeable; paity 7.9 to 9.7 percent. Sand is angular to subangular clear white quartz with rare dark rock grains. A few carbonaclaminae at 3240 and 3258 ft. A few small fragments and pat of medium-dark-gray clay shale at 3271 ft. Grayish-brown a rounded clay ironstone nodules at 3276 ft are 1/4 to 1 in. in diam Mica, pyrite, and glauconite absent.	nter- t top	0°30′ 44 20-0 45 19-0 46 10-0 47 19-0 49 20-0 50 20-0		NO.21 — 3100 NO.22 — 3200
3300 —		Sandstone, medium-light-gray, argillaceous, massive, impermer porosity 7.6 to 12.7 percent. Composition as in core above but abundant carbonaceous argillaceous laminae at 1468 ft. Thin be medium-dark-gray micaceous claystone 1/4 to 2 in. thick at 3 3500 ft Siltstone, medium-gray, faintly laminated; grading to medium gray with 37 percent carbonate content toward base. Clays laminae at 3511 ft, 2-in. beds at 3512 ft Sandstone, medium-light-gray, silty, argillaceous, slightly micaced siltstone as above; 1/4 to 4-in. beds of medium-dark-gray clay total a quarter of the rock	dark stone	0°40′ 51 18-0 52 28-0 53 8-0 55 20-0		ND.20 — 3400 NO.24 — 3400 NO.25 — 3500 — 3500 — 3500 — 360 NO.26 — — — — — — — — — — — — — — — — — — —
3600	LONG NORM SHORT NORM	Sandstone, medium-light-gray, very silty and argillaceous, slightly micaceous, massive, impermeable; porosity 8.9 to 10.1 cent. A 1- in. layer of claystone, with claystone fragments a and below it, at 3714 ft; 7 in. of claystone at 3735 ft and 1 ft at 3740-3742 ft. Claystone is also interbedded with sandstone of the control of the con	very perabove 8 in me at stone 760 ft Test 11, 3833-3945 ft: Open 93 min, no gas to surface; bottom-hole pressure, zero Test 11, 3833-3945 ft: Open 93 min, no gas to surface; bottom-hole pressure, zero; recovered 10 ft drilling mod Test 12, 3850-3882 ft: Open 104 min,	0°40′ 56 10-0 57 17-0 58 15-0 59 15-0 0°-5° 0°50′ 0° 61 20-0		NO.27 — 3600 NO.28 — 3700 NO.29 — 3700 NO.29 — 3800 NO.30 — 3800
3900 — RUN Total depth 3987		Sandstone, medium-light-gray, silty, argillaceous, massive, impable; porosity 2.5 to 9.6 percent. Single layer of chert pebb 3837 ft. Abundam intercalations and thin beds of medium-gray claystone at 8865-8863 ft have contacts resembling marks. Claystone beds up to 10 in thick between 8872 and 3 Siltstone, medium-gray, argillaceous; clay laminae Claystone, medium-dark-gray, very silty and micaceous; lamin medium-gray siltstone Claystone, medium- to medium-dark-gray, very silty; rare st and patches of siltstone and sandstone APHIC LOG OF SQUARE LA	Test 12, 3850-3882 ft: Open 104 min, closed in 15 min; bottom-hole pressure, zero 'ripple 907 ft	0°-3° 62 17-0 63 19-0 1° 64 15-6 65 10-0 66 7-0 0°50′ 67 9-0	Togge Logge	644 39 40 742 41 644 42 43 NO.31

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